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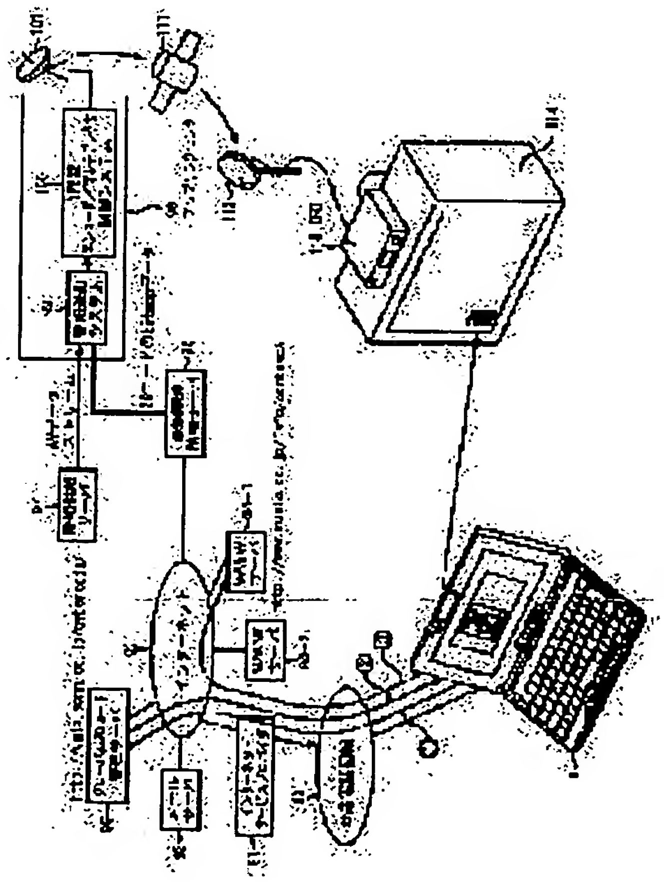
(54) INFORMATION SERVICE UNIT, ITS METHOD, INFORMATION PROCESSOR, ITS METHOD AND MEDIUM

(57)Abstract:

PROBLEM TO BE SOLVED: To simply serve information relating to a program.

SOLUTION: A global 2D code management server 95 stores URLs of WWW servers 94-1, 94-2 that serve a home page relating to a program outputted from a program supply server 9-7 together with corresponding global 2D codes. An up-link center 98 broadcasts a picture of a program on which the global 2D code is superimposed. A personal computer 1 detects the global 2D code from a picture resulting from photographing a picture on a television receiver 114 by a CCD video camera, supplies the detected global D code to the global 2D code management server 95 to receive the service of a corresponding URL.



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CLAIMS

[Claim(s)]
[Claim 1] 2nd generating means to generate the information about the predetermined pattern at least corresponding to the part of 1st generating means to generate the data of the image of the program to sponsor, and the images of said program, Information offer equipment characterized by having a synthetic means to compound the information about said pattern generated by said 2nd generating means to the data of the image of said program generated by said 1st generating means, and an output means to output the data compounded by said synthetic means.
[Claim 2] It is information offer equipment according to claim 1 characterized by for said 2nd generating means generating the data of the image of said pattern, and said synthetic means generating the data of the image which superimposed the image of said pattern which said 2nd generating means generated in the image of said program which said 1st generating means generated.
[Claim 3] Said 2nd generating means is information offer equipment according to claim 1 characterized by generating a two dimensional code as information on said pattern.
[Claim 4] The 2nd generating step which generates the information about the predetermined pattern at least corresponding to the part of the 1st generating step which generates the data of the image of the program to sponsor, and the images of said program, The synthetic step which compounds the information about said pattern generated by processing of said 2nd generating step to the data of the image of said program generated by processing of said 1st generating step, The information offer approach characterized by including the output step which outputs the data compounded by processing of said synthetic step.
[Claim 5] The 2nd generating step which generates the information about the predetermined pattern at least corresponding to the part of the 1st generating step which generates the data of the image of the program to sponsor, and the images of said program, The synthetic step which compounds the information about said pattern generated by processing of said 2nd generating step to the data of the image of said program generated by processing of said 1st generating step, The medium which makes information offer equipment perform the program characterized by including the output step which outputs the data compounded by processing of said synthetic step.
[Claim 6] An incorporation means to incorporate image data, and an extract means to extract the information on a predetermined pattern from said image data incorporated by said incorporation means, A transmitting means to transmit the information on said pattern extracted by said extract means to other information processors through a network, The 1st receiving means which receives the address information corresponding to the information on said pattern which said transmitting means transmitted through said network from the information processor besides the above transmitted, The information processor characterized by having the 2nd receiving means which receives the information which accesses a predetermined access place through said network, and the access place offers based on said address information received by said 1st receiving means.
[Claim 7] said -- others -- the information processor according to claim 6 characterized by having further a storage means to memorize the address on said network of an information processor.
[Claim 8] Said 1st receiving means is an information processor according to claim 6 characterized by receiving URL as said address information.
[Claim 9] Said incorporation means is an information processor according to claim 6 characterized by having an image pick-up means to picturize a display.
[Claim 10] Said extract means is an information processor according to claim 6 characterized by extracting a two dimensional code as information on said pattern.

[Claim 11] The extract step which extracts the information on a predetermined pattern from said image data incorporated by processing of the incorporation step which incorporates image data, and said incorporation step, The transmitting step which transmits the information on said pattern extracted by processing of said extract step to other information processors through a network, The 1st receiving step which receives the address information corresponding to the information on said pattern transmitted by processing of said transmitting step transmitted through said network from the information processor besides the above, The information processing approach characterized by including the 2nd receiving step which receives the information which accesses a predetermined access place through said network, and the access place offers based on said address information received by processing of said 1st receiving step.
[Claim 12] The extract step which extracts the information on a predetermined pattern from said image data incorporated by processing of the incorporation step which incorporates image data, and said incorporation step, The transmitting step which transmits the information on said pattern extracted by processing of said extract step to other information processors through a network, The 1st receiving step which receives the address information corresponding to the information on said pattern transmitted by processing of said transmitting step transmitted through said network from the information processor besides the above, It is based on said address information received by processing of said 1st receiving step. The medium which makes an information processor perform the program characterized by including the 2nd receiving step which receives the information which accesses a predetermined access place through said network, and the access place offers.
[Claim 13] A storage means to memorize the code information corresponding to the predetermined pattern on which an image is overlapped, and the address information to which said code information corresponds, A receiving means to receive said code information transmitted through a network from other information processors, A retrieval means to search said address information corresponding to said code information which said receiving means received out of said address information memorized by said storage means, The information processor characterized by having a transmitting means to transmit said address information searched by said retrieval means through said network to an information processor besides the above.
[Claim 14] Said storage means is an information processor according to claim 13 characterized by memorizing URL as said address information.
[Claim 15] The storage step which memorizes the code information corresponding to the predetermined pattern on which an image is overlapped, and the address information to which said code information corresponds, The receiving step which receives said code information transmitted through a network from other information processors, The retrieval step which searches said address information corresponding to said code information received by processing of said receiving step out of said address information memorized by processing of said storage step, The information processing approach characterized by including the transmitting step which transmits said address information searched by processing of said retrieval step through said network to an information processor besides the above.
[Claim 16] The storage step which memorizes the code information corresponding to the predetermined pattern on which an image is overlapped, and the address information to which said code information corresponds, The receiving step which receives said code information transmitted through a network from other information processors, The retrieval step which searches said address information corresponding to said code information received by processing of said receiving step out of said address information memorized by processing of said storage step, The medium which makes an information processor perform the program characterized by including the transmitting step which transmits said address information searched by processing of said retrieval step through said network to an information processor besides the above.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to a medium at the information offer equipment and the approach of having enabled it to provide especially information offer equipment and an approach, an information processor and an approach, and a list with easy more much accompanying information about a medium, an information processor and an approach, and a list.
[0002]
[Description of the Prior Art] In television broadcasting, offering the information which accompanies it in addition to original image information is proposed. Such accompanying information is usually multiplexed at a vertical blanking interval.
[0003]
[Problem(s) to be Solved by the Invention] However, since there was little capacity which can be superimposed, the approach of superimposing accompanying information on a vertical blanking interval had the technical problem which can offer only the information on small capacity, such as text data.
[0004] This invention is made in view of such a situation, and enables it to offer more accompanying information simply.
[0005]
[Means for Solving the Problem] 1st generating means by which information offer equipment according to claim 1 generates the data of the image of the program to sponsor, 2nd generating means to generate the information about the predetermined pattern at least corresponding to the part of the images of a program, It is characterized by having a synthetic means to compound the information about the pattern generated by the 2nd generating means to the data of the image of the program generated by the 1st generating means, and an output means to output the data compounded by the synthetic means.
[0006] The 1st generating step which generates the data of the image of the program which offers the information offer approach according to claim 4, The 2nd generating step which generates the information about the predetermined pattern at least corresponding to the part of the images of a program, It is characterized by including the synthetic step which compounds the information about the pattern generated by processing of the 2nd generating step to the data of the image of the program generated by processing of the 1st generating step, and the output step which outputs the data compounded by processing of a synthetic step.
[0007] The 1st generating step in which a medium according to claim 5 generates the data of the image of the program to sponsor, The 2nd generating step which generates the information about the predetermined pattern at least corresponding to the part of the images of a program, The synthetic step which compounds the information about the pattern generated by processing of the 2nd generating step to the data of the image of the program generated by processing of the 1st generating step, Information offer equipment is made to perform the program characterized by including the output step which outputs the data compounded by processing of a synthetic step.
[0008] An incorporation means by which an information processor according to claim 6 incorporates image data, An extract means to extract the information on a predetermined pattern from the image data incorporated by the incorporation means, A transmitting means to transmit the information on the pattern extracted by the extract means to other information processors through a network, The 1st receiving means which receives the address information corresponding to the information on the pattern which the transmitting means transmitted transmitted through a network from other information processors, Based on the address information received by

the 1st receiving means, a predetermined access place is accessed through a network and it is characterized by having the 2nd receiving means which receives the information which the access place offers.

[0009] The incorporation step to which the information processing approach according to claim 11 incorporates image data, The extract step which extracts the information on a predetermined pattern from the image data incorporated by processing of an incorporation step, The transmitting step which transmits the information on the pattern extracted by processing of an extract step to other information processors through a network, The 1st receiving step which receives the address information corresponding to the information on the pattern transmitted by processing of a transmitting step transmitted through a network from other information processors, Based on the address information received by processing of the 1st receiving step, a predetermined access place is accessed through a network and it is characterized by including the 2nd receiving step which receives the information which the access place offers.

[0010] The incorporation step to which a medium according to claim 12 incorporates image data, The extract step which extracts the information on a predetermined pattern from the image data incorporated by processing of an incorporation step, The transmitting step which transmits the information on the pattern extracted by processing of an extract step to other information processors through a network, The 1st receiving step which receives the address information corresponding to the information on the pattern transmitted by processing of a transmitting step transmitted through a network from other information processors, A predetermined access place is accessed through a network and an information processor is made to perform the program characterized by including the 2nd receiving step which receives the information which the access place offers based on the address information received by processing of the 1st receiving step.

[0011] The code information corresponding to the predetermined pattern on which an information processor according to claim 13 is superimposed by the image, A storage means to memorize the address information to which code information corresponds, and a receiving means to receive the code information transmitted through a network from other information processors, It is characterized by having a retrieval means to search the address information corresponding to the code information which the receiving means received out of the address information memorized by the storage means, and a transmitting means to transmit the address information searched by the retrieval means to other information processors through a network.

[0012] The code information corresponding to the predetermined pattern on which the information processing approach according to claim 15 is superimposed by the image, The storage step which memorizes the address information to which code information corresponds, and the receiving step which receives the code information transmitted through a network from other information processors, The retrieval step which searches the address information corresponding to the code information received by processing of a receiving step out of the address information memorized by processing of a storage step, It is characterized by including the transmitting step which transmits the address information searched by processing of a retrieval step to other information processors through a network.

[0013] The code information corresponding to the predetermined pattern on which a medium according to claim 16 is superimposed by the image, The storage step which memorizes the address information to which code information corresponds, and the receiving step which receives the code information transmitted through a network from other information processors, The retrieval step which searches the address information corresponding to the code information received by processing of a receiving step out of the address information memorized by processing of a storage step, An information processor is made to perform the program characterized by including the transmitting step which transmits the address information searched by processing of a retrieval step to other information processors through a network.

[0014] In information offer equipment according to claim 1, the information offer approach according to claim 4, and a medium according to claim 5, the information about the predetermined pattern at least corresponding to the part of the images of a program is compounded and outputted to the data of the image of a program.

[0015] In an information processor according to claim 6, the information processing approach according to claim 11, and a medium according to claim 12, from image data, the information on a predetermined pattern is extracted and it is transmitted to other information processors through a network. And from other information processors, when the address information corresponding to the information on the pattern has been transmitted, based on the address information, access is performed at a predetermined access place.

[0016] In an information processor according to claim 13, the information processing approach according to claim 15, and a medium according to claim 16, when the code information corresponding to a predetermined pattern and the address information corresponding to code information are memorized and code information has been transmitted through a network, the address information corresponding to the code information is searched and transmitted.

[0017]

[Embodiment of the Invention] Drawing 1 expresses the example of the information offer structure of a system which applied this invention. The pocket mold personal computer 1 is connected to Internet Service Provider 91 through the dial-up line 90. Internet Service Provider 91 is connected to the Internet 92, and a mail server 93, the WWW server 94-1, 94-2 (hereafter, when these WWW servers 94-1 and 94-2 do not need to be distinguished separately, it is only described as the WWW server 94), the global 2D code management server 95, and the program related information server 96 are connected to this Internet 92. A mail server 93 manages e-mail delivered and received through the Internet 92. The WWW server 94 offers the information represented by various kinds of homepages through the Internet 92. The global 2D code management server 95 transmits URL (Uniform Resource Locator) corresponding to the 2D code to the equipment which has transmitted the 2D code, when predetermined 2D code has been transmitted through the Internet 92.

[0018] The program related information server 96 has memorized 2D code on which the image data of a program is overlapped as information (program related information) relevant to the program broadcast. The program supply server 97 has memorized the image data and audio data of a program which are broadcast.

[0019] The stream (AV data stream) of the image data of a program and audio data which the program supply server 97 outputs is supplied to the program sending-out system 99 of the up link center 98. The bit map data of 2D code which the program related information server 96 outputs are also supplied to this program sending-out system 99 again. The program sending-out system 99 superimposes the bit map data of 2D code on the image data of the frame to which it corresponds in inputted AV data stream, and supplies them to an MPEG 2 encoder / multiplexer control system 100. An MPEG 2 encoder / multiplexer control system 100 encodes the audio data and the image data which were supplied from the program sending-out system 99 by MPEG(Moving Picture Experts Group) 2 method, carries out a multiplexer to the image data of the program of two or more of other channels, and audio data, and transmits them to a satellite 111 through an antenna 101. A satellite 111 relays the signal supplied from the antenna 101 to each home.

[0020] At each home, it receives by IRD (Integrated Receiver/Decoder)113 through a parabolic antenna 112. IRD113 restores to the received signal, outputs it to a television receiver 114, and displays this.

[0021] In addition, IRD113 can be constituted as indicated by JP,8-111823,A.

[0022] Drawing 2 thru/or drawing 7 express the example of a configuration of the pocket mold personal computer 1 of drawing 1 . This personal computer 1 is used as the personal computer of a mini note type, and is fundamentally constituted by the display 3 whose closing motion is enabled to the body 2 and the body 2.

[0023] The keyboard 4 operated when inputting various kinds of alphabetic characters, notations, etc. is arranged, and mostly, when [of a keyboard 4] moving a mouse cursor in the center, the stick pointing device (it is hereafter called a stick for short) 5 operated like a joy stick is formed in the top face of a body 2. The left carbon button 31 and the right carbon button 33 are operated like the left carbon button of a mouse and right carbon button in the usual personal computer. Without doubling cursor with a scroll button, the center carbon button 32 is used, when operating a scroll bar. Furthermore, the shutter carbon button 10 operated when picturizing with the loudspeaker 8 which outputs a sound, and the CCD video camera 23 prepared in the display 3 is formed in the top face of a body 2.

[0024] The pawl 13 is formed in the upper bed section of a display 3, and as shown in drawing 4 , in the condition of having blockaded the display 3 to the body 2, the pore 6 into which a pawl 13 fits is formed in the location which counters the pawl 13 of a body 2. The slide lever 7 is formed in parallel movable in the front face, in the front face of a body 2, the slide lever 7 can engage with the pawl 13 which fitted into the pore 6, and can be locked, and lock discharge can be carried out now in it. When a lock is canceled, a display 3 can be rotated to a body 2. The microphone 24 is attached next to the pawl 13. This microphone 24 is made as [collect / the sound from a tooth back], as shown also in drawing 7 . The lid 26 which covers opening for attaching an add in memory in a body 2 can remove the lock pawl by inserting a pin in a stoma 41.

[0025] The programmable power key (PPK) 9 is formed in the front face of a body 2 again. As shown in drawing 5 , the exhaust hole 11 is formed in the right lateral of a body 2, and as shown in drawing 6 , the inhalation-of-air hole 14 is formed in the front lower part of a body 2 at it. Furthermore, the slot 12 for inserting a PCMCIA (Personal Comuputer Memory Card International Association) card (PC card) is formed in the right-hand side of an exhaust hole 11. As shown in drawing 4 , the electric power switch 40 is formed in the left lateral of a body 2.

[0026] LCD (Liquid Crystal Display)21 which displays an image is formed in the transverse plane of a display 3, and the image pick-up section 22 is formed in the upper bed section free [rotation] to the display 3. That is, this image pick-up section 22 is made as [rotate / it / in the location of the arbitration of the range of 180 degrees between the same direction as LCD21, and the direction of that reverse (the direction of on the back)]. The CCD video camera 23 which can adjust a focus is attached in the image pick-up section 22 with the adjust ring 25. The lamp which consists of LED of line-indicator PL, the cell lamp BL, the message lamp ML, and others is formed in the display 3 bottom of a body 2, and the part which counters.

[0027] Drawing 8 expresses the configuration inside a personal computer 1. CPU (Central Processing Unit)52, PC card 53 inserted if needed, RAM (Random Access Memory)54, and a graphic chip 64 are connected to the internal bus 51. The internal bus 51 is connected to the external bus 55, and a hard disk drive (HDD) 56, the I/O (I/O) controller 57, the keyboard controller 58, the stick controller 59, the sound chip 60, the modem 61, the LCD controller 62, etc. are connected to the external bus 55.

[0028] CPU52 is a controller which generalizes various kinds of functions, and when adding the function of an option, it is suitably equipped with PC card 53. In RAM54, when starting is completed, OS(basic program) 54A, 2D code recognition program (application program) 54B, and capture program (application program) 54C are transmitted from HDD56, for example, it memorizes.

[0029] OS(basic program software)54A controls the fundamental actuation of a computer represented by Windows 98 (trademark).

[0030] 2D code recognition program 54B is a program which carries out the capture of the image picturized with the CCD video camera 23 (namely, a capture function -- having), and recognizes a two dimensional code (2D code is called hereafter). In this example, a cyber-code finder (Cyber Code Finder) (trademark) is used as 2D code recognition program 54B. In addition, about 2D code, it mentions later with reference to drawing 14 .

[0031] Capture program 54C is a program which picturizes the image of a photographic subject with the CCD video camera 23. Capture program 54C has the function to save the picturized image as the still picture file (for example, JPEG file) which can transmit via a network, or an animation file. In this example, a smart capture (Smart Capture) (trademark) is used as capture program 54C.

[0032] On the other hand, OS(basic program software) 56A, 2D code recognition program 56B, capture program 56C, etc. are beforehand stored in the hard disk drive (HDD) 56 by the side of an external bus 55 at the time of shipment. OS56A in a hard disk drive 56, 2D code recognition program 56B, and the capture program C are the processes of processing in which an electric power switch 40 is operated, OS56A is started (boot rise), and 2D code recognition program 56B and capture program 56C are started further, and a sequential transfer is carried out into RAM54, and they are memorized as OS54A, 2D code recognition program 54B, and capture program 54C. URL (for example, "http://www.vaio.sonn.co.jp/cybercode/cybersrv.cgi") of the global 2D code management server 95 is also memorized by the registry file of a hard disk drive 56.

[0033] I/O controller 57 is constituted by the microcontroller, the I/O interface, CPU, RAM, ROM, etc. I/O controller 57 drives lamps, such as line-indicator PL, the cell lamp BL, and the message lamp ML. Moreover, I/O controller 57 detects actuation of an electric power switch 40, the programmable power key 9, the half-push switch 67, all the push switches 68, a reversing switch 69, etc.

[0034] An electric power switch 40 is operated when a power source is turned on or turned off. The half-push switch 67 is turned on when it changes the shutter carbon button 10 into a half-push condition, and all the push switches 68 are turned on when it changes the shutter carbon button 10 into all push conditions. A reversing switch 69 is turned on when the image pick-up section 22 rotates 180 degrees (when the CCD video camera 23 rotates in the direction which picturizes the opposite hand of LCD21). RTC (Real-Time Clock)70 -- always and a time check -- actuation is performed and current time is outputted to I/O controller 57. Moreover, I/O controller 57 is backed up by the dc-battery 71.

[0035] The keyboard controller 58 connected to the external bus 55 controls the input from a keyboard 4. The stick controller 59 controls the input of a stick 5. The sound chip 60 incorporates the input from a microphone 24, or supplies a sound signal to the built-in loudspeaker 8. A modem 61 is connectable with the Internet 92, a mail server 93, the WWW server 94, etc. through a dial-up line 90 and Internet Service Provider 91.

[0036] After the image data incorporated with the CCD video camera 23 is processed in the processing section 66 by the graphic chip 64 connected to the internal bus 51, it is inputted into it. A graphic chip 64 makes VRAM65 to build in memorize the image data inputted from the CCD video camera 23 through the processing section 66, suitably, reads this and outputs it to the LCD controller 62. The LCD controller 62 outputs and displays on LCD21 the image data supplied from the graphic chip 64. A back light 63 illuminates LCD21 from back.

[0037] The global 2D code management server 95 is constituted as shown in drawing 9 . CPU131 performs various kinds of processings according to the program memorized by ROM (Read Only Memory)132 or the hard disk drive unit 134. ROM132 has memorized the program and various kinds of data which are performed for example, at the time of starting. RAM133 memorizes required data and a required program, when various kinds of processings are performed by CPU131. The hard disk drive unit 134 has memorized the URL table (that detail is later mentioned with reference to drawing 17) to which the server program as which this global 2D code management server 95 is operated as a server, and a global 2D code and URL were made to correspond.

[0038] A display 135 displays the image corresponding to the image data supplied from CPU131. The input section 136 is operated by the manager of the global 2D code management server 95 when inputting various kinds of commands into CPU131.

[0039] From the data supplied from CPU131, a network interface 137 generates an IP packet according to Internet Protocol, and outputs it to the Internet 92 while the Internet 92 is accessed and it receives IP (Internet Protocol) packet addressed to global 2D code management server 95.

[0040] As shown in drawing 10 , the program related information server 96 is constituted by CPU151 thru/or the network interface 157, and the program supply server 97 is constituted by CPU171 thru/or the network interface 177 as shown in drawing 11 . In these drawing 10 and drawing 11 , as compared with drawing 9 , the program related information server 96 and the program supply server 97 are similarly constituted as fundamentally as the global 2D code management server 95 so that clearly.

[0041] However, while the server program corresponding to the function which this program related information server 96 performs is memorized by the hard disk drive unit 154 of the program related information server 96, to it, the timetable containing that broadcast time of day is remembered to be 2D code inserted into the image of the program to broadcast. Moreover, while the server program which operates this program supply server 97 is memorized by the hard disk drive unit 174 of the program supply server 97, the image data and audio data of the program to broadcast are memorized by it with the timetable containing that broadcast time of day. Furthermore, the network interface 157 of the program related information server 96 and the network interface 177 of the program supply server 97 are connected also to the up link center 98 besides the Internet 92.

[0042] In addition, in this example, although it was made for the program supply server 97 to output image data and audio data as data of a program from a hard disk drive unit 174, the Internet 92 and the program data supplied through other networks are suitably processed through a network interface 177, and it can send out to the up link center 98.

[0043] Moreover, the WWW server 94 is constituted by CPU191 thru/or the network interface 197 as shown in drawing 12 . This drawing 12 and drawing 9 are compared, and this WWW server 94 as well as the global 2D code management server 95 is fundamentally constituted so that clearly. However, while the server program to which this WWW server 94 is operated as a hard disk drive unit 194 is memorized, the data of the homepage offered to the accessed personal computer 1 are memorized.

[0044] Next, with reference to the flow chart of drawing 13 , processing of the program related information server 96 is explained. The manager of the program related information server 96 requests offer of the information on a predetermined homepage from the manager of the WWW server 94 in relation to the program which ties up with a predetermined thing beforehand among the WWW servers 94, and is broadcast. For example, from the program supply server 97, when outputting the data of the program of a predetermined drama, to supply from the WWW server 94 by making into a homepage information which the fan of the performers, such as a profile of the performer who is appearing on the drama, desires is demanded. Or when outputting the data of the commercials of an automobile from the program supply server 97, in relation to the automobile, offer of the homepage in which detailed information is included is requested [rather than] from the WWW server 94 again. And in step S1, when a command is inputted from the manager of the program related information server 96, CPU151 transmits the list of the URL to the global 2D code management server 95 through the Internet 92 from a network interface 157 while making the timetable (drawing 15) of a hard disk drive unit 154 memorize the list of URL of the WWW server 94 which tied up as mentioned above.

[0045] The global 2D code management server 95 transmits 2D code which assigned 2D code at the URL and assigned supply of the list of URL at the time of a carrier beam so that it might mention later with reference to drawing 16 .

[0046] Here, 2D code is explained. As 2D code is shown in drawing 14 , 1 block is made into one unit, it has the field of the rectangle of die length whose longitudinal direction it is the die length whose lengthwise direction is 9.5 blocks, and is 7 blocks, and the LOGO section B is formed in this field at the cel section A and its lower part. The part for 1 block which does not have data substantially is formed in the field which adjoins the LOGO section B of the cel section A. Within the limits of the square of the die length for 7 blocks, a rectangular cel (block) is patternized two-dimensional by both the cel sections A, and a lengthwise direction and a longitudinal direction are arranged at them. Corresponding to the code pattern, the identification number (2D code ID) of 2D code expressed with a 24-bit bit code is set up.
[0047] The cel of a rectangle with a longitudinal direction big [the die length for 7 blocks] is arranged for a lengthwise direction by the die length for 1.5 blocks at the LOGO section B. In this LOGO section B, the mark for publicity (LOGO), a predetermined alphabetic character, etc. can be arranged.
[0048] About 1 million 2D codes of the value of the range of 0x000000 thru/or 0x0FFFFF are used as a local 2D code among the 2D codes ID which consist of 24 bits, and let about 15 million 2D codes of the value of the range of 0x100000 thru/or 0xFFFFFF be global 2D codes.
[0049] A local 2D code can be uniquely used in each user (personal computer 1), and the global 2D code management server 95 manages a global 2D code. If it puts in another way, the global 2D code management server 95 will assign the predetermined thing of this global 2D code for offer of the list of URL from the program related information server 96 to that URL at the time of a carrier beam.
[0050] CPU151 of the program related information server 96 makes the timetable of a hard disk drive unit 154 memorize it in step S2, when this 2D code is received through a network interface 157 (drawing 15). Moreover, the manager of the program related information server 96 operates the input section 156, and when the time of day (start time and end time) which inserts this 2D code in the image of a program is inputted, CPU15 makes a timetable memorize this.
[0051] Thus, as shown in drawing 15 , 2D code is memorized by the timetable with the time of day (start time and end time) broadcast and corresponding URL. drawing 15 -- a display -- an example -- depending -- if -- for example -- " -- http -- : -- /-- /-- www . -- abc . -- co . -- jp/Products -- " -- URL -- corresponding -- 2D -- a code -- " -- 1048500 -- " -- 1999 -- a year -- four -- a month -- one -- a day -- six -- o'clock -- ten -- a minute -- 15 -- a second -- from -- six -- o'clock -- 11 -- a minute -- 15 -- a second -- up to -- one -- a minute -- between -- broadcasting -- having . Moreover, "http://www.music.co.jp/Info/contentA "2D code which URL supports" 1048591" is broadcast for 20 seconds from 12:25 10 seconds on April 1, 1999 to 12:25 30 seconds.
[0052] Next, the demand of the assignment of 2D code to URL is explained with reference to the flow chart of drawing 16 from the program related information server 96 about processing of the global 2D code management server 95 of a carrier beam case. CPU131 of the global 2D code management server 95 will receive this in step S11, if supply of the list of URL is received from the program related information server 96 through a network interface 137. And in step S12, CPU131 performs processing which assigns 2D code (global 2D code) to each URL which received. CPU131 makes 2D code which controlled and assigned the network interface 137 transmit to the program related information server 96 which has required the assignment in step S13. Moreover, CPU131 stores a URL table as shown in drawing 17 including the assigned list of a global 2D code and URL in a hard disk drive unit 134. In the example of drawing 17 , the global 2D code of "1048591" is assigned to URL of "http://www.music.co.jp/Info/contentA."
[0053] After quota processing of 2D code corresponding to URL of the WWW server 94 which offers program related information as mentioned above is completed, the program sending-out system 99 performs processing as shown in the flow chart of drawing 18 .
[0054] First, in step S21, the program sending-out system 99 supplies the image data and audio data which are supplied from the program supply server 97 to an MPEG 2 encoder / multiplexer control system 100 as it is, when it judges whether the program related information offered in relation to the program to broadcast exists and does not exist it. That is, in this case, CPU171 of the program supply server 97 reads the program data memorized by the hard disk drive unit 174 corresponding to a timetable, and supplies this to the program sending-out system 99 through a network interface 177. The program sending-out system 99 supplies the inputted program data to an MPEG 2 encoder / multiplexer control system 100. An MPEG 2 encoder / multiplexer control system 100 encodes the inputted program data, multiplexes them with the encoding data of other channels, and is transmitted through an antenna 101.
[0055] When the program related information which accompanies the program broadcast on the other hand exists, in step S22, CPU151 of the program related information server 96 generates the bit map data of 2D code

which correspond from the start time to end time based on the timetable (drawing 15) memorized by the hard disk drive unit 154, and transmits them to the program sending-out system 99 through a network interface 157. In step S23, the program sending-out system 99 superimposes the bit map data of 2D code transmitted from the program related information server 96 on the position (for example, lower left) of each frame of the image data in the program data supplied from the program supply server 97. Moreover, since URL corresponding to 2D code CPU151 of the program information related server 96 is remembered to be by the timetable at this time is also read and it outputs to the program sending-out system 99 by making this into bit map data, the program sending-out system 99 also superimposes this URL on the image data of a program. As shown in the result, for example, drawing 19 , or drawing 20 , the data of the image with which it was superimposed on the 2D code 211,212 and URL corresponding to it in the image of the predetermined frame of a program are generated.

[0056] Next, in step S24, the program sending-out system 99 repeats and performs return and processing after it to step S21, when judging whether the program to send out was completed and having not ended yet. Processing is ended when judged with having ended the program to send out.

[0057] Next, processing of a personal computer 1 is explained with reference to the flow chart of drawing 21 and drawing 22 . When judging and using whether 2D code is used for acquiring program related information, the user (viewer of the program supplied from the program supply server 97) of a personal computer 1 operates a keyboard 4, and inputs it. Then, in step S41, CPU52 judges whether the selection input of 2D code activity was performed, and when inputted, it starts 2D code recognition program (in the case of this example cyber-code finder) of a personal computer 1 in step S42. Consequently, processing which processing which picturizes an image with the CCD video camera 23 is performed by the capture program, and recognizes 2D code from the picturized image is performed. Then, a user adjusts so that the location where the global 2D code of a television receiver 114 is displayed for it in the location of the CCD video camera 23 may be picturized. For example, when it seems that the program sending-out system 99 makes the lower left of the image of a program supplied from the program supply server 97 superimpose URL on 2D code supplied from the program related information server 96 as shown in drawing 19 or drawing 20 , a user adjusts the location so that the CCD video camera 23 may picturize the lower left of a television receiver 114.

[0058] In step S43, the CCD video camera 23 captures the picturized image, and outputs it to the processing section 66. The processing section 66 processes suitably the image data inputted from the CCD video camera 23, and outputs it to a graphic chip 64. A graphic chip 64 reads the image data memorized there, and supplies it to the LCD controller 62 while it makes VRAM65 once develop this and makes it memorize the inputted image data. The LCD controller 62 outputs and displays the inputted image data on LCD21.

[0059] CPU52 performs processing which detects 2D code from the captured image while performing processing which makes the CCD video camera 23 capture an image by 2D code recognition program as mentioned above. That is, in step S44, CPU52 repeats and performs return and processing after it to step S43, when not judged and contained [whether 2D code (drawing 14) is contained in the acquired image data, and]. In step S44, when judged with 2D code having been detected, it progresses to step S45 and CPU52 (2D code recognition program) judges whether detected 2D code is a global 2D code.

[0060] When detected 2D code is not a global 2D code, it progresses to step S46 (in being a local 2D code), and CPU52 (2D code recognition program) performs processing (processing which the user assigned to the local 2D code) corresponding to the local 2D code. Then, return and processing after it are repeatedly performed by step S43. In step S45, when judged with detected 2D code being a global 2D code, it progresses to step S47 and CPU52 (2D code recognition program) reads URL of a global 2D code management server from HDD56. This URL is beforehand stored in the registry file in which the system itself writes operating environment, an active parameter, etc. at any time working [OS's, such as Windows 98 (trademark), and the application program of those].

[0061] In step S48, CPU52 (2D code recognition program) adds 2D code detected at step S44 to URL of the global 2D code management server 95 acquired at step S47. For example, when "1048591" is detected as a global 2D code, CPU52 generates "CCID=1048591&VER=2" as an argument.

[0062] CPU52 (2D code recognition program) adds the argument generated as mentioned above to URL of the global 2D code management server acquired at step S47, and generates the URL "http://vaio.sonn.co.jp/cybercode/cybersrv.cgi?CCID=1048591&VER=2." Among this URL, "cybersrv.cgi" expresses the name of the CGI (Common Gateway Interface) program which CPU131 of the global 2D code management server 95 performs, and "CCID=1048591" and "VER=2" express the argument to this CGI program, respectively. The former argument expresses ID of a global 2D code, and the latter argument expresses the version.

[0063] Next, it progresses to step S49, CPU52 (2D code recognition program) starts a WWW browser like Netscape (Netscape) (trademark) of for example, the Netscape company, and access to URL generated at step S48 is required. In step S50, CPU52 (WWW browser) notifies ID of 2D code to the global 2D code management server 95 as an argument while requiring the CGI program execution specified by URL mentioned above of the global 2D code management server 95. That is, CPU52 (WWW browser) controls a modem 61, accesses Internet Service Provider 91 through the telephone line 90, and is made to access the global 2D code management server 95 through the Internet 92 further from there at this time. Thereby, in drawing 1 , access to the global 2D code management server 95 is performed from the personal computer 1 shown by the number 1.

[0064] In the step S75, CPU131 of the global 2D code management server 95 which received URL to which the argument for a CGI program execution demand was added creates an HTML file (homepage), and transmits the generated HTML file in step S77 so that it may mention later with reference to the flow chart of drawing 24 . Then, in step S51, when it stands by until CPU52 (WWW browser) received the HTML file from the global 2D code management server 95, and an HTML file is received, it performs processing which displays an HTML file in step S52. As [show / LCD21 / at drawing 23 / this] "it connects with registered URL. Please wait for a while. The image (homepage) containing a message which is " is displayed.

[0065] Moreover, URL corresponding to the global 2D code generated at step S48 is also contained in this HTML file. CPU52 (WWW browser) performs after refresh processing which accesses URL contained in an HTML file in step S53. This URL is URL of the WWW server 94 which offers the homepage as program related information. for example, global, as shown in drawing 17 -- URL corresponding to "1048591" is made into "http://www.music.co.jp/Info/contentA" 2 codes, and this URL is URL of the homepage which the WWW server 94-1 offers.

[0066] Thus, since the HTML file of a homepage is transmitted from the WWW server 94-1 to a personal computer 1 when access is performed, a WWW browser (CPU52) performs processing (processing which displays a homepage) which displays the HTML file in step S54. Thereby, it receives to LCD21 by IRD113, and the program related information which accompanies the program currently shown by the television receiver 114 is displayed on it. Thus, it means that access to the WWW server 94-1 from the personal computer 1 shown by the number 3 was performed in drawing 1 .

[0067] Then, return and processing after it are repeatedly performed by step S43.

[0068] When it judges with the input of the purport which uses a global 2D code in step S41 although program related information is acquired not being made, CPU52 is operating a keyboard 4 etc., after it progresses to step S55 and a user's starts a WWW browser, and it stands by until it carries out the direct input of the URL. For example, since in the case of the present example URL (http://www.music.co.jp/Info/contentA) corresponding to the bottom of the global 2D code 211 is displayed as shown in drawing 19 , a user can input this URL by operating a keyboard 4. In step S56, CPU52 (WWW browser) performs access to inputted URL. And in step S57, since a homepage is transmitted from the WWW server 94-1 to a personal computer 1, a WWW browser performs processing which displays the homepage in step S57. Thus, that a user does the direct input of the URL can also acquire program related information.

[0069] In addition, the program about the global 2D code management server 95 (this management server can also be considered to be a kind of a WWW server) is broadcast, and the example of a display of drawing 20 expresses that URL as the global 2D code in the case of accessing to the homepage which it offers as program related information.

[0070] Next, with reference to the flow chart of drawing 24 , the global 2D code management server 95 explains the processing at the time of receiving URL to which the argument for a CGI program execution demand was added. In step S71, CPU131 of the global 2D code management server 95 stands by until it receives access, and it judges whether in step S72, the argument for a CGI program execution demand is contained [access] in the carrier beam (it received) URL in access at the time of a carrier beam. As mentioned above, when access has been performed by reading the global 2D code in the image of a program, the argument for a CGI program execution demand is added to URL by processing of step S48 of drawing 22 . As a result, for example, URL as shown in "http://vaio.sonn.co.jp/cybercode/cybersrv.cgi?CCID=1048591&VER=2", it is received. In this case, CPU131 starts the CGI program of name"cybersrv.cgi" described by this URL, and hands over an argument (CCID=1048591&VER=2) to that CGI program.

[0071] In step S74, CPU131 (CGI program (cybersrv.cgi)) acquires URL corresponding to the passed argument from a URL table. Since URL corresponding to ID"1048591" of 2D code the case of the present example is "http://www.music.co.jp/Info/contentA", this URL is acquired. In step S75, a CGI program creates the HTML file which accesses acquired URL. Thereby for example, the following HTML files are created. <html><head><title>Global CyberCode Server</title><META HTTP-EQUIV="Refresh" CONTENT="0; URL=http://www.sme.co.jp/Music/Info/MaywaDenki/"></head><body-bgcolor="#FFFFFF" background="images/gback.gif"><table border="0" width="100%" cellspacing="0" cellpadding= -- "0"><tr><td height=" -- 46"width="3%"valign="top"></td><td height=" 46 -- "width=" -- 97%"><p -- > -- < -- /-- p -- > -- < -- p -- > -- < -- img src -- = -- " -- images/vlogo . -- gif -- " -- width -- = -- " -- 52 -- " -- height -- = -- " -- 16 -- " -- align -- = -- "right" -- > -- < -- /-- p -- > -- < -- /-- td -- > -- < -- /-- tr -- > -- < -- tr -- > -- < -- td height -- = -- " -- 250 -- " -- width="3%" > </td> <td height= -- "250"width="97%" -- align="center" valign="middle" -- nowrap><table border= -- "1"width="500"align="center" bgcolor=" #000000" -- cellspacing="1" ><tr> <td height="111" ><table border= -- "0"width="99%" -- bgcolor= -- "#000000"bordercolor=" #000000"cellspacing=" 0" -- cellpadding= -- "0"align="center"><tr><td width="15%" -- height -- = -- " -- 101 -- " -- > -- < -- img src -- = -- " -- images/code . -- gif -- " -- width -- = -- " -- 63 -- " -- height -- = -- " -- 95 -- " -- align -- = -- "middle" -- > -- < -- /-- td -- > -- < -- td width -- = -- " -- 85 -- % -- " -- height -- = -- " -- 101 -- " -- > -- < -- font -- color -- = -- " -- # -- FFFFFF -- " -- > -- < -- b -- > -- < -- fontface -- = -- " -- MS -- Gothic -- Osaka - etc. -- width of face -- mono -- " -- > -- registration -- carrying out -- having had -- URL -- under connection -- it is . <br> Please wait for a while -- < -- /-- tr -- > -- < -- /-- table -- > -- < -- /-- td -- > -- < -- /-- tr -- > -- < -- /-- table -- > -- < -- br -- > -- < -- font color -- = -- " -- # -- FFFFFF -- " -- face= -- "width of face, such as MS Gothic and Osaka-, and mono"size="-1" -- > -- (-- c --) 1999 Sony -- Corporation.All rights reserved. </td> </tr> </table> </body> </html -- > -- this HTML file -- "-- it connects with registered URL. Please wait for a while. The message which is " is also contained. When this HTML file is expressed as step S52 in a personal computer 1, as mentioned above, an image as shown in drawing 23 will be displayed.

[0072] Next, it progresses to step S77 and CPU131 (CGI program) transmits the HTML file generated at step S75 to the accessed IP address (in the case of the present example personal computer 1). Then, return and processing after it are repeatedly performed by step S71.

[0073] the case where it is judged with the argument for a CGI program execution demand not being contained in the carrier beam URL in access in step S72 -- step S76 -- progressing -- CPU131 -- for example, -- "-- this is a global CyberCode server. Please access using CyberCode Finder (Ver 2.0). The HTML file containing a message which is " is created, and it progresses to step S77. In step S77, processing transmitted to the IP address which has accessed the HTML file created at step S76 is performed. Consequently, in a personal computer 1, when this HTML file is displayed by processing of step S52, an image as shown in drawing 25 will be displayed on LCD21. That is, since a global 2D code has not been primarily transmitted to the user who has accessed even if it receives access to URL which does not contain the argument for a CGI program execution demand, CPU131 of the global 2D code management server 95 cannot provide a user with corresponding URL. So, in such a case, an image as shown in drawing 25 is displayed.

[0074] Informational offer processing to a personal computer 1 is performed from the global 2D code management server 95 shown [in / as mentioned above / drawing 1] by the number 2.

[0075] The image displayed on the television receiver 114 with the CCD video camera 23 as mentioned above will be picturized, the cel (block) black [in drawing 14] and shown when detecting the global 2D code displayed there and it is made to display by making into white the background of the cel section A and the LOGO section B shown in drawing 14 will be crushed in the white of a background, and recognizing becomes difficult. Then, a background is good to consider as 50% of brightness (gray), when making white into 100% of brightness. By doing in this way, it becomes possible to recognize to accuracy, without each cel (block) being crushed by the background.

[0076] Thus, the program related information (homepage) which accompanies a program is offered through the Internet 92, and since it inserted only the information relevant to URL which accesses the homepage in the program itself broadcast, even if there is much the amount of data, it becomes possible [offering program related information]. When it is made such, URL is extracted from a vertical blanking interval, and it becomes impossible moreover, to have to stop having to add the function which accesses the URL to IRD or a television receiver, and to apply it to existing IRD and an existing television receiver, although it is also possible to insert in the vertical blanking interval of the image of a program URL which offers a homepage, and to make it transmit. On the other hand, if constituted like the above-mentioned gestalt of operation, it is necessary to add a special function to neither IRD nor a television receiver at all.

[0077] Furthermore, since 2D code relevant to URL which offers a homepage is superimposed on the image of a program and broadcast, the television broadcasting system of a digital method becomes possible [offering program related information simply] also in the television broadcasting system of an analog form from the first.

[0078] Next, the medium used in order to install in a computer the program which performs a series of processings mentioned above and to make it into the condition which can be performed by computer with reference to drawing 26 is explained.
[0079] As shown in drawing 26 (A), a user can be provided with a program in the condition of having installed on the hard disk 302 (it corresponding to the hard disk built in the hard disk drive 56 of drawing 8) as a record medium built in the personal computer 301 beforehand.
[0080] Or as shown in drawing 26 (B), a program can be stored in record media, such as the floppy (trademark) disk 311, CD-ROM (Compact Disk-Read Only Memory)312, the MO (Magneto-Optical) disk 313, DVD (Digital Versatile Disk)314, a magnetic disk 315, and semiconductor memory 316, temporarily or permanently, and can be offered as a software package again.
[0081] Furthermore, it transmits to a personal computer 323 on radio, or a program is transmitted to a personal computer 323 with a cable through a Local Area Network and a network 331 called the Internet, and can be made to store in the hard disk to build in in a personal computer 323 through the satellite 322 for digital satellite broadcasting from the download site 321, as shown in drawing 26 (C).
[0082] The medium in this description means the concept of the wide sense containing all these media.
[0083] Moreover, it is not necessary to necessarily process serially the step which describes the program offered by the medium in accordance with the sequence indicated by the flow chart, and it is a juxtaposition thing also including the processing performed according to an individual in this description.
[0084]
[Effect of the Invention] Since the information about a pattern is compounded to the image data of a program and it was made to output it like the above according to an information processor according to claim 1, the information processing approach according to claim 4, and the medium according to claim 5, it becomes possible to offer the information relevant to a program simply.
[0085] According to an information processor according to claim 6, the information processing approach according to claim 11, and the medium according to claim 12 The information on the predetermined pattern extracted from image data is transmitted to other information processors through a network. Since the address information corresponding to the information on the pattern transmitted through a network is accessed from other information processors and informational offer was received from the access place, it becomes possible to receive offer of the information relevant to an image simply and certainly.
[0086] According to an information processor according to claim 13, the information processing approach according to claim 15, and the medium according to claim 16 Since the address information corresponding to code information is searched and it was made to transmit when the code information corresponding to the pattern on which an image is overlapped, and the address information corresponding to code information were memorized and code information was received It becomes possible about the information corresponding to code information to make offer received simply and certainly at other information processors.

[Translation done.]

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damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is drawing showing the information offer structure of a system which applied this invention.
[Drawing 2] It is the perspective view showing the example of a configuration of the personal computer of drawing 1 .
[Drawing 3] It is the top view showing the configuration of the flat surface in the condition of having opened the display of the personal computer of drawing 2 .
[Drawing 4] It is the left side view showing the configuration in the condition of having closed the display of the personal computer of drawing 2 .
[Drawing 5] It is the right side view showing the configuration in the condition of having opened the display of the personal computer shown in drawing 2 .
[Drawing 6] It is the front view showing the configuration in the condition of having closed the display of the personal computer of drawing 2 .
[Drawing 7] It is the bottom view showing the configuration of the base in the condition of having opened the display of the personal computer of drawing 2 .
[Drawing 8] It is the block diagram showing the configuration inside the personal computer of drawing 2 .
[Drawing 9] It is the block diagram showing the example of a configuration of the global 2D code management server of drawing 1 .
[Drawing 10] It is the block diagram showing the example of a configuration of the program related information server of drawing 1 .
[Drawing 11] It is the block diagram showing the example of a configuration of the program offer server of drawing 1 .
[Drawing 12] It is the block diagram showing the example of a configuration of the WWW server of drawing 1 .
[Drawing 13] It is a flow chart explaining processing of the program related information server of drawing 1 .
[Drawing 14] It is drawing explaining 2D code.
[Drawing 15] It is drawing showing the example of a timetable.
[Drawing 16] It is a flow chart explaining actuation of the global 2D code management server of drawing 1 .
[Drawing 17] It is drawing showing the example of a URL table.
[Drawing 18] It is a flow chart explaining actuation of the program sending-out system of drawing 1 .
[Drawing 19] It is drawing showing the example of a display of the image containing 2D code.
[Drawing 20] It is drawing showing the example of a display of the image containing 2D code.
[Drawing 21] It is a flow chart explaining actuation of the personal computer of drawing 1 .
[Drawing 22] It is a flow chart explaining actuation of the personal computer of drawing 1 .
[Drawing 23] It is drawing showing the example of a display of the HTML file in step S52 of drawing 22 .
[Drawing 24] It is a flow chart explaining actuation of the global 2D code management server of drawing 1 .
[Drawing 25] It is drawing showing the example of a display of the HTML file in step S52 of drawing 22 .
[Drawing 26] It is drawing explaining the medium which offers a program.
[Description of Notations]
2 Body 3 Display 5 Stick Point 10 Shutter Carbon Button 21 LCD 22 Image Pick-up Section 23 CCD Video Camera 31 Left Carbon Button 33 Right Carbon Button, 52 CPU 54 RAM, 56 Hard disk drive 66 processing section 67 A half-push switch, 68 All push switches, 91 Internet Service Provider 92 Internet 94-1, 94-2 WWW server 95 Global 2D code management server 96 A program related information server, 97 Program supply

server 99 Program sending-out system 113 IRD 114 Television receiver

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[Translation done.]

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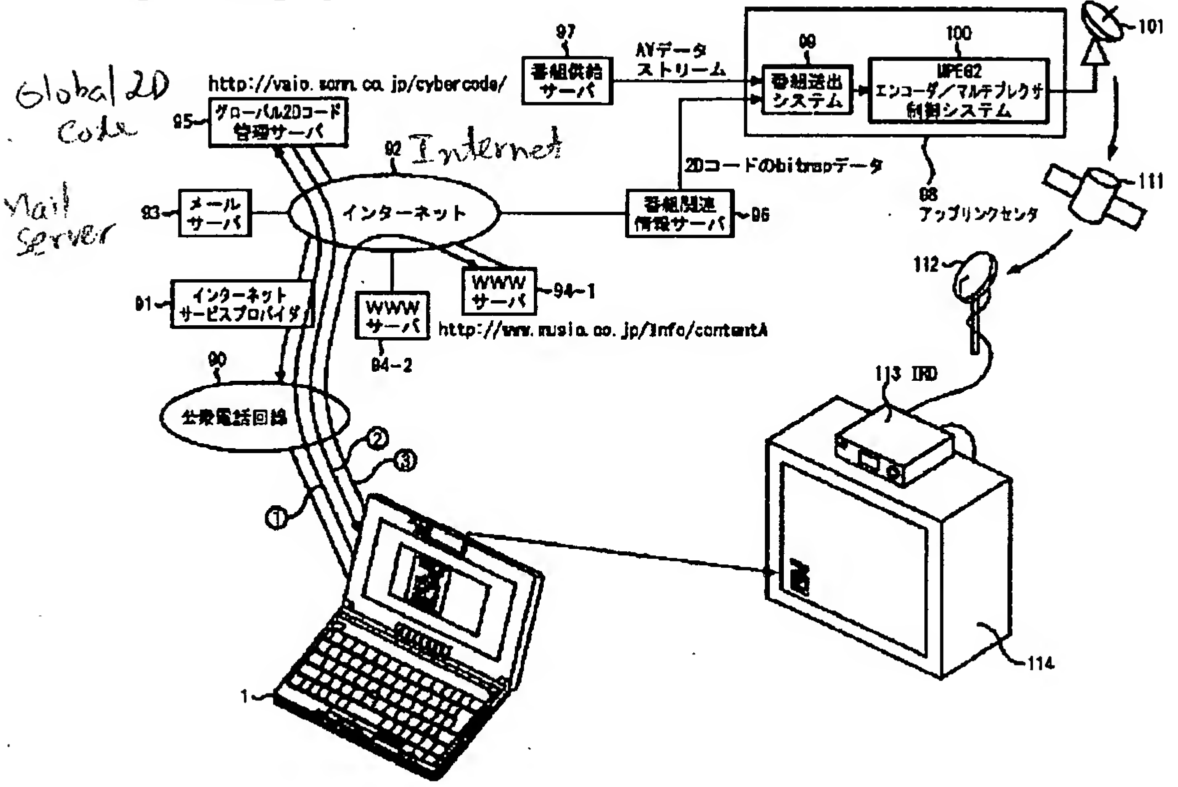
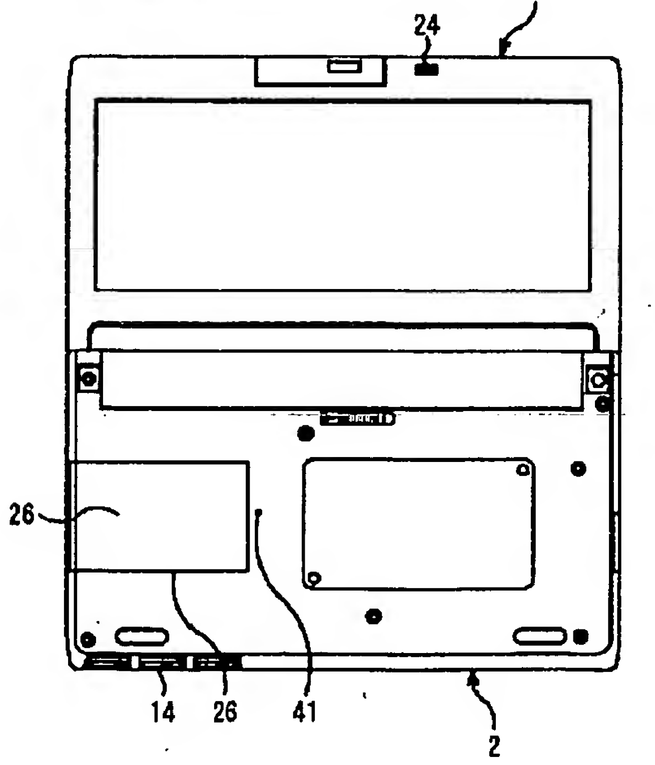
3.In the drawings, any words are not translated.

DRAWINGS

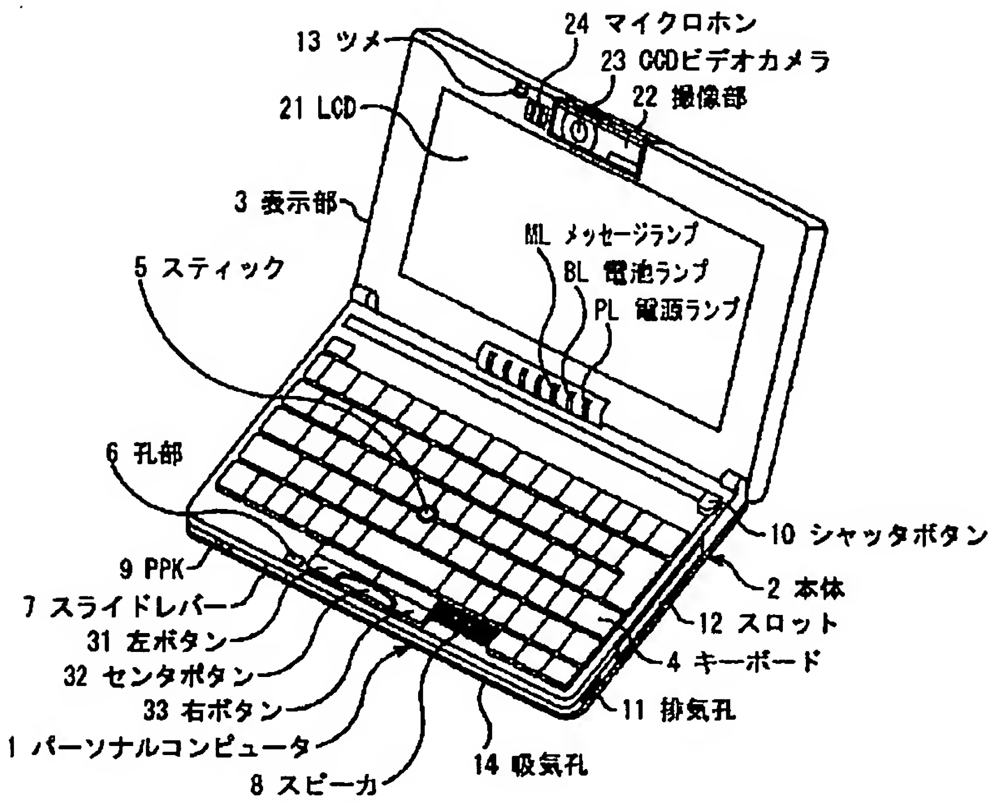
[Drawing 1]


Global 2D Code
http://vaio.sonn.co.jp/cybercode/
95
グローバル2Dコード管理サーバ
97
番組供給サーバ
AVデータストリーム
99
番組送出システム
100
MPEG2 エンコーダ/マルチプレクサ制御システム
101
2Dコードのbitmapデータ
98
アップリンクセンタ
111
92 Internet
Mail Server
93
メールサーバ
インターネット
番組関連情報サーバ
96
112
91
インターネットサービスプロバイダ
WWW サーバ
94-1
WWW サーバ
94-2
http://www.music.co.jp/info/contentA
90
公衆電話回線
113 IRD
②
③
①
1
114

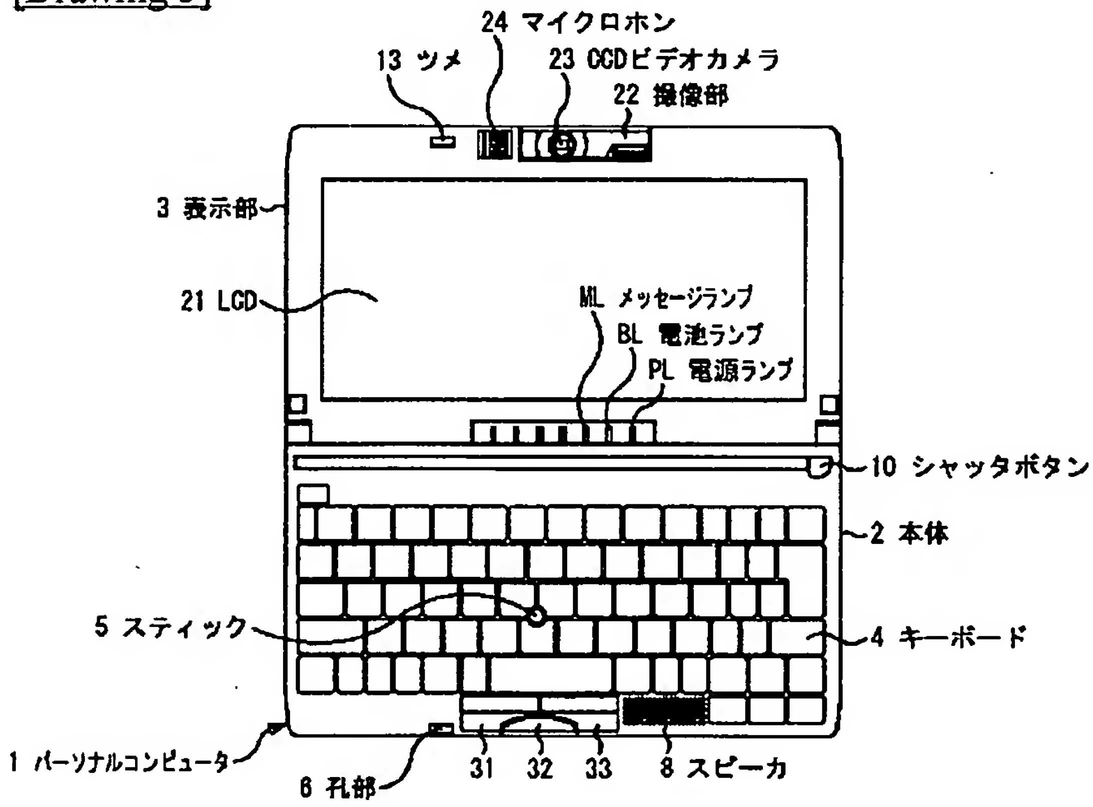
[Drawing 7]


24
3
26
14
26
41
2

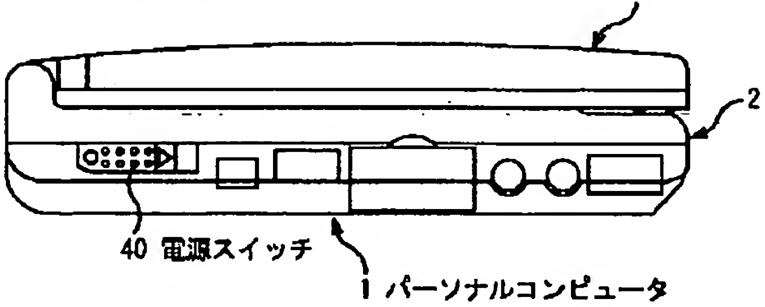
[Drawing 2]


13 ツメ
24 マイクロホン
23 CCDビデオカメラ
22 撮像部
21 LCD
3 表示部
ML メッセージランプ
BL 電池ランプ
PL 電源ランプ
5 スティック
6 孔部
10 シャッタボタン
2 本体
9 PPK
7 スライドレバー
12 スロット
31 左ボタン
4 キーボード
32 センタボタン
33 右ボタン
11 排気孔
1 パーソナルコンピュータ
14 吸気孔
8 スピーカ

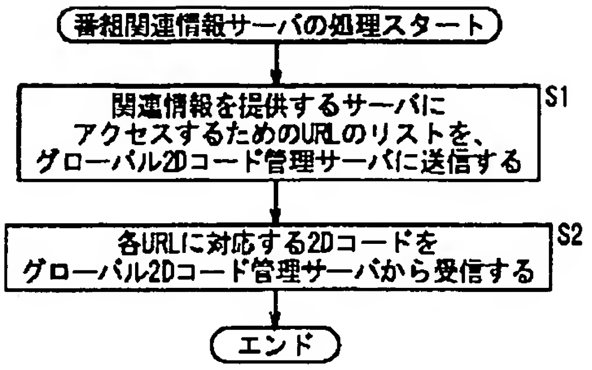
[Drawing 3]


24 マイクロホン
13 ツメ
23 CCDビデオカメラ
22 撮像部
3 表示部
21 LCD
ML メッセージランプ
BL 電池ランプ
PL 電源ランプ
10 シャッタボタン
2 本体
5 スティック
4 キーボード
1 パーソナルコンピュータ
6 孔部
31
32
33
8 スピーカ

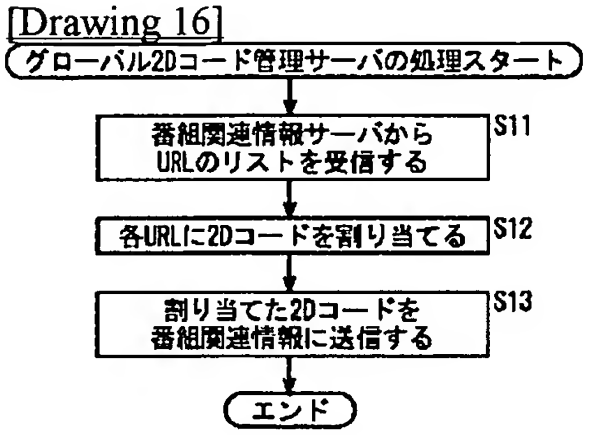
[Drawing 4]


3
2
40 電源スイッチ
1 パーソナルコンピュータ

[Drawing 13]


番組関連情報サーバの処理スタート
関連情報を提供するサーバにアクセスするためのURLのリストを、グローバル2Dコード管理サーバに送信する
S1
各URLに対応する2Dコードをグローバル2Dコード管理サーバから受信する
S2
エンド

[Drawing 16]

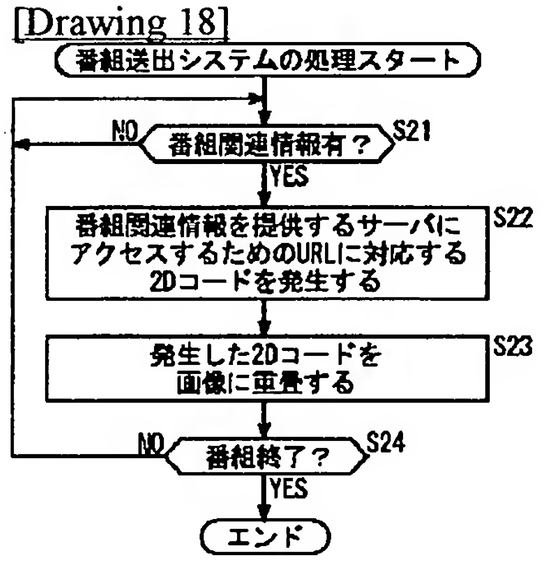

グローバル2Dコード管理サーバの処理スタート
番組関連情報サーバからURLのリストを受信する
S11
各URLに2Dコードを割り当てる
S12
割り当てた2Dコードを番組関連情報に送信する
S13
エンド

[Drawing 17]

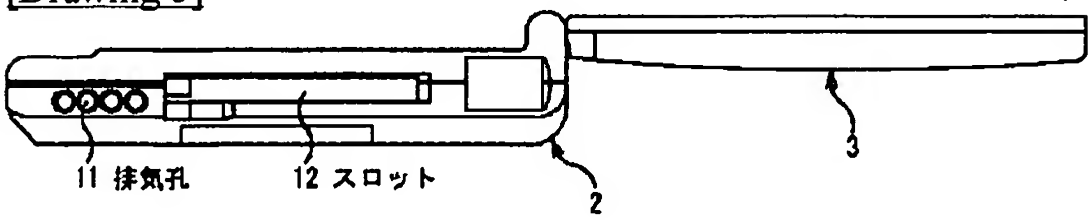
グローバル2Dコード	URL
1048500	http://www.abc.co.jp/Products
1048501	
1048502	
⋮	
1048591	http://www.music.co.jp/Info/contentA
⋮	⋮

URLテーブル

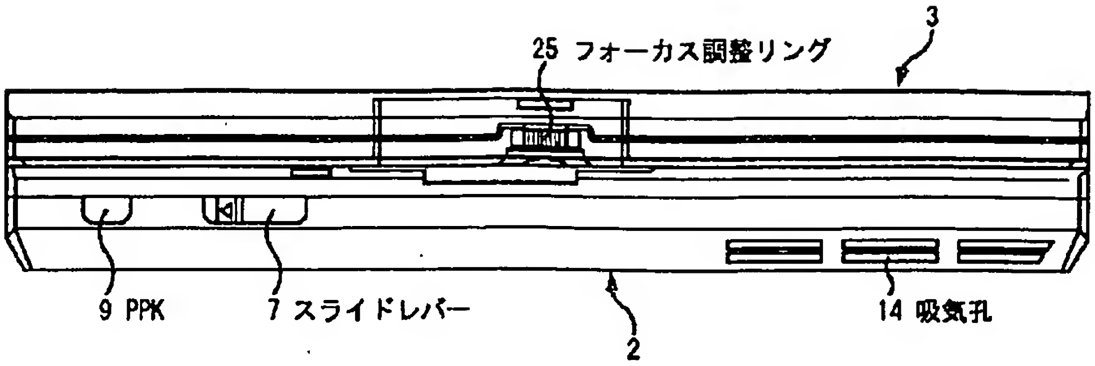
[Drawing 18]


番組送出システムの処理スタート
NO
番組関連情報有？
S21
YES
番組関連情報を提供するサーバにアクセスするためのURLに対応する2Dコードを発生する
S22
発生した2Dコードを画像に重畳する
S23
NO
番組終了？
S24
YES
エンド

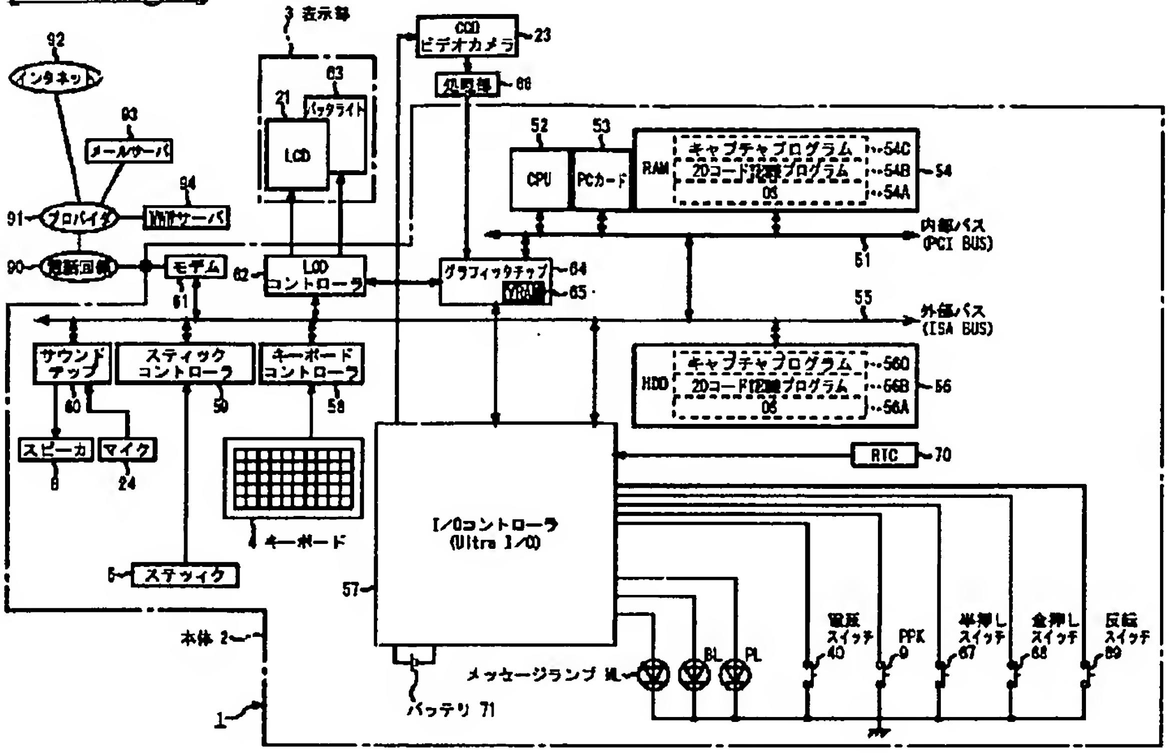
[Drawing 5]


11 排気孔
12 スロット
2
3

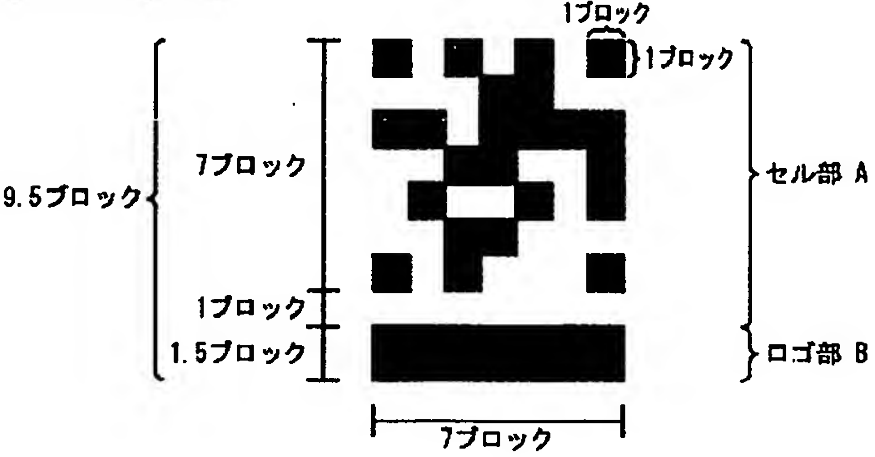
[Drawing 6]


25 フォーカス調整リング
3
9 PPK
7 スライドレバー
2
14 吸気孔

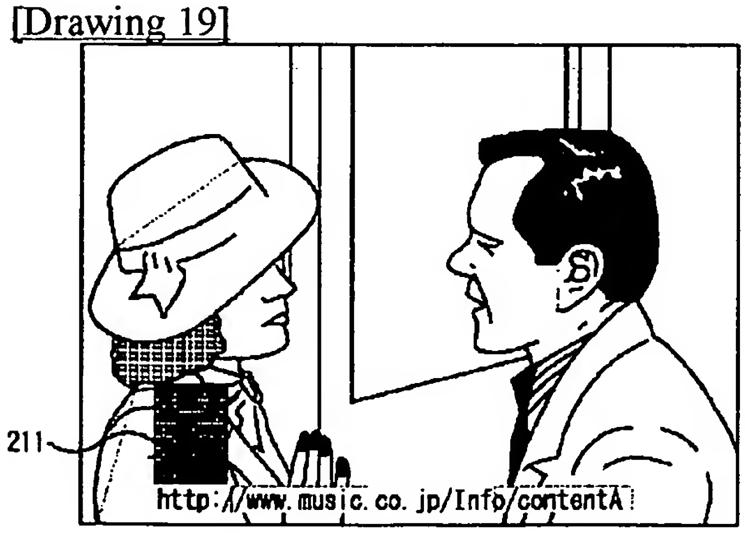
[Drawing 8]


92
インタネット
93
メールサーバ
94
WWWサーバ
91
プロバイダ
90
電話回線
モデム
61
3 表示部
21
63
バックライト
LCD
62
LCD コントローラ
CCD ビデオカメラ
23
処理部
68
52
CPU
53
PCカード
RAM
キャプチャプログラム
2Dコード認識プログラム
OS
54C
54B
54A
54
内部バス (PCI BUS)
51
グラフィックチップ
64
VRAM
65
55
外部バス (ISA BUS)
HDD
キャプチャプログラム
2Dコード認識プログラム
OS
56C
56B
56A
56
サウンドチップ
60
スティックコントローラ
50
キーボードコントローラ
58
スピーカ
8
マイク
24
4 キーボード
6 スティック
RTC
70
I/Oコントローラ (Ultra I/O)
57
本体 2
1
バッテリ 71
メッセージランプ ML
BL
PL
電源スイッチ 40
PPK 9
半押しスイッチ 67
全押しスイッチ 68
反転スイッチ 69

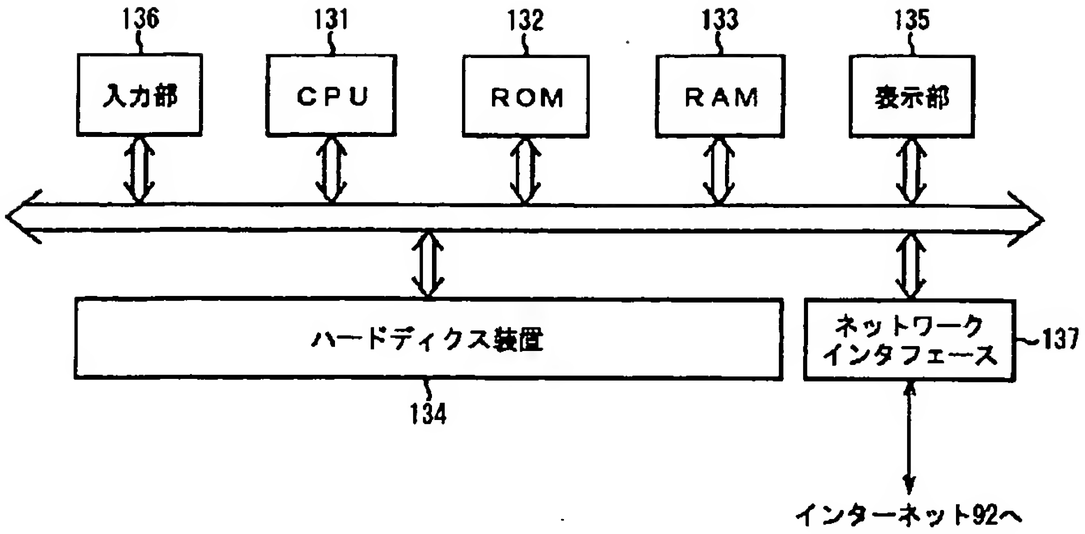
[Drawing 14]


1ブロック
1ブロック
9.5ブロック
7ブロック
1ブロック
1.5ブロック
セル部 A
ロゴ部 B
7ブロック

[Drawing 19]

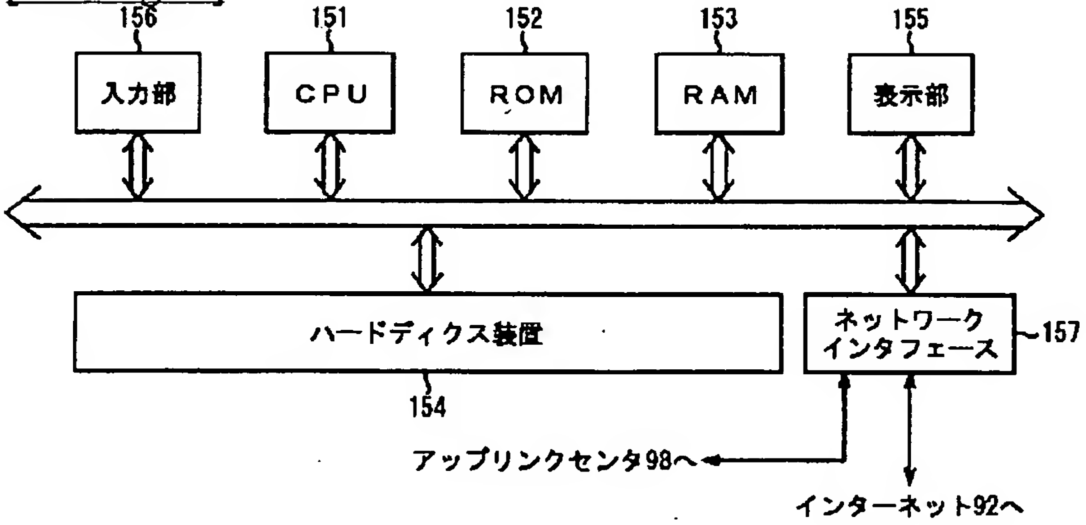

211
http://www.music.co.jp/Info/contentA

[Drawing 9]


136
131
132
133
135
入力部
CPU
ROM
RAM
表示部
ハードディクス装置
134
ネットワーク インタフェース
137
インターネット92へ

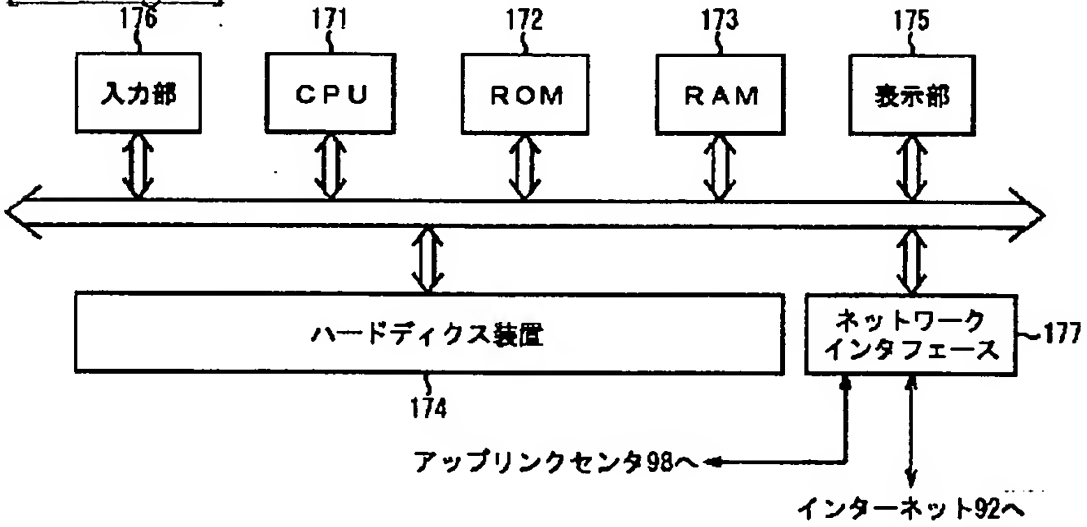
グローバル2Dコード管理サーバ 95

[Drawing 10]


156
151
152
153
155
入力部
CPU
ROM
RAM
表示部
ハードディクス装置
154
ネットワーク インタフェース
157
アップリンクセンタ98へ
インターネット92へ

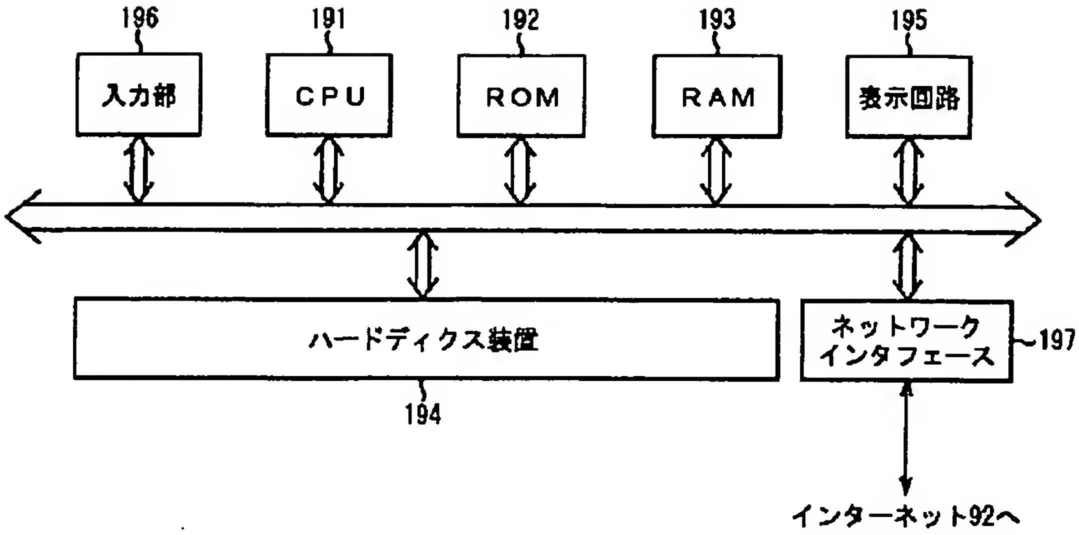
番組関連情報サーバ 96

[Drawing 11]


176
171
172
173
175
入力部
CPU
ROM
RAM
表示部
ハードディクス装置
174
ネットワーク インタフェース
177
アップリンクセンタ98へ
インターネット92へ

番組供給サーバ 97

[Drawing 12]


196
191
192
193
195
入力部
CPU
ROM
RAM
表示回路
ハードディクス装置
194
ネットワーク
インタフェース
197
インターネット92へ

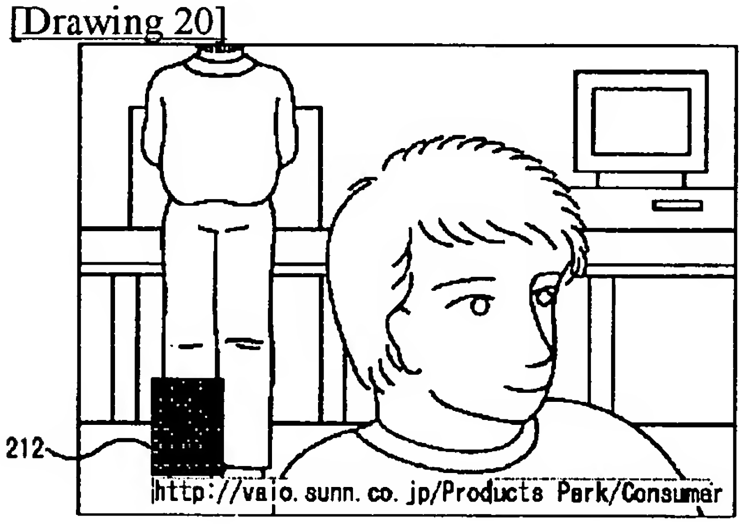
WWWサーバ 94

[Drawing 15]

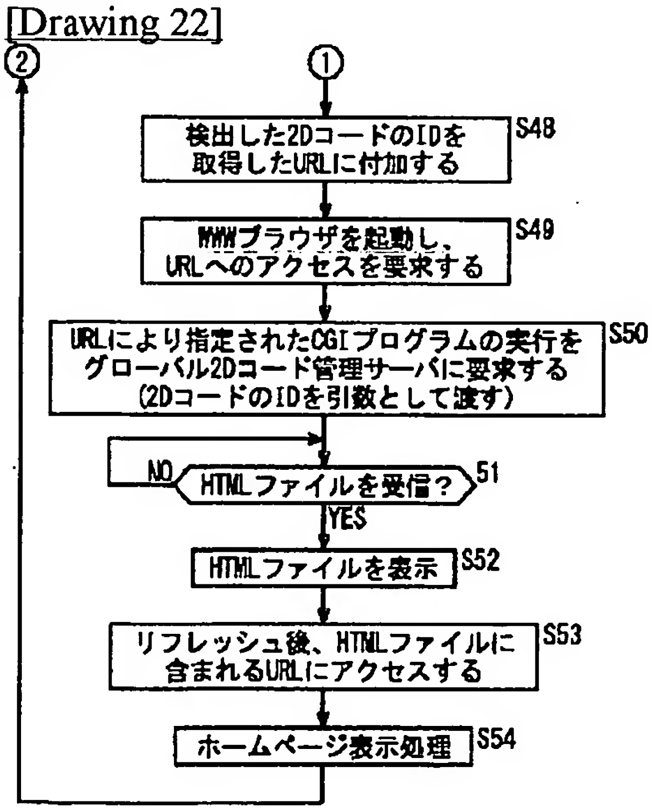
放送時刻		2Dコード	URL
開始時刻	終了時刻		
1999年04月01日06時10分15秒	1999年04月01日06時11分15秒	1048500	http://www.abc.co.jp/Products
⋮	⋮	⋮	⋮
1999年04月01日12時25分10秒	1999年04月01日12時25分30秒	1048591	http://www.music.co.jp/Info/contentA
⋮	⋮	⋮	⋮

タイムテーブル

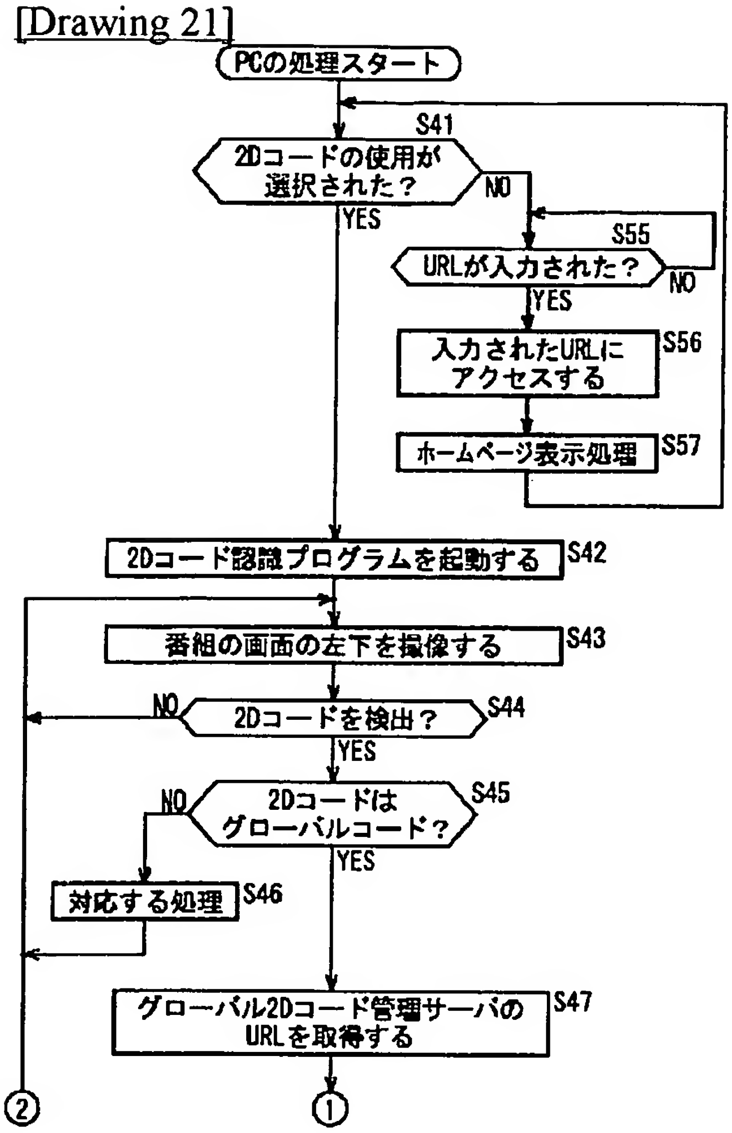
[Drawing 20]


212
http://vaio.sunn.co.jp/Products Park/Consumer

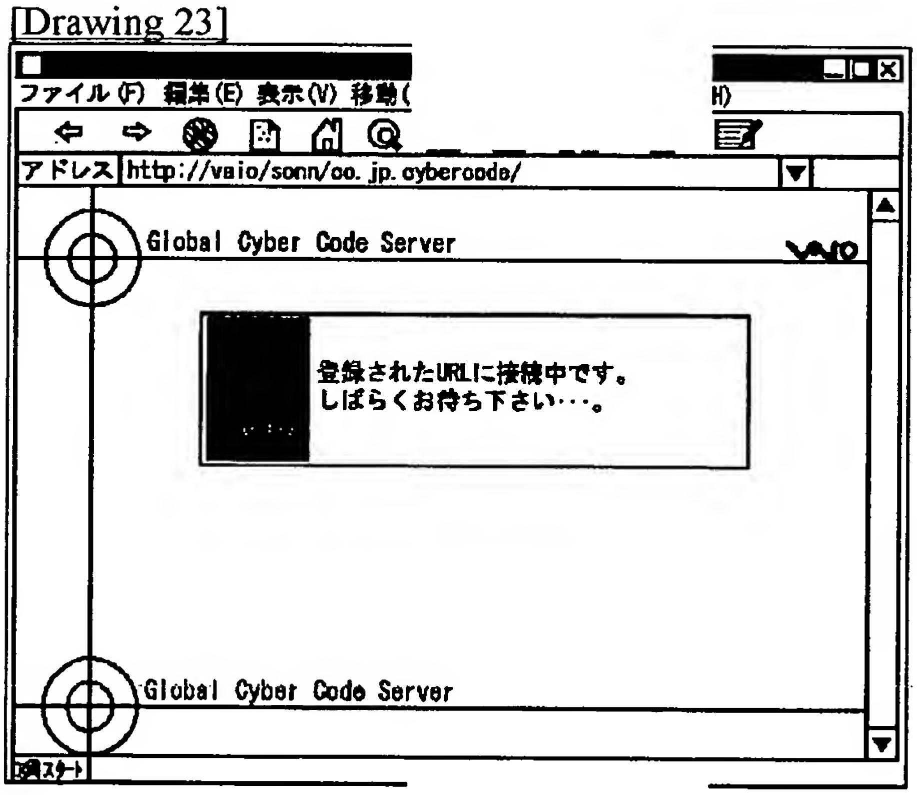
[Drawing 22]


②
①
検出した2DコードのIDを取得したURLに付加する
S48
WWWブラウザを起動し、URLへのアクセスを要求する
S49
URLにより指定されたCGIプログラムの実行をグローバル2Dコード管理サーバに要求する（2DコードのIDを引数として渡す）
S50
NO
HTMLファイルを受信？
51
YES
HTMLファイルを表示
S52
リフレッシュ後、HTMLファイルに含まれるURLにアクセスする
S53
ホームページ表示処理
S54

[Drawing 21]


PCの処理スタート
S41
2Dコードの使用が選択された？
NO
YES
S55
URLが入力された？
NO
YES
S56
入力されたURLにアクセスする
S57
ホームページ表示処理
S42
2Dコード認識プログラムを起動する
S43
番組の画面の左下を撮像する
NO
S44
2Dコードを検出？
YES
NO
S45
2Dコードはグローバルコード？
YES
S46
対応する処理
S47
グローバル2Dコード管理サーバのURLを取得する
②
①

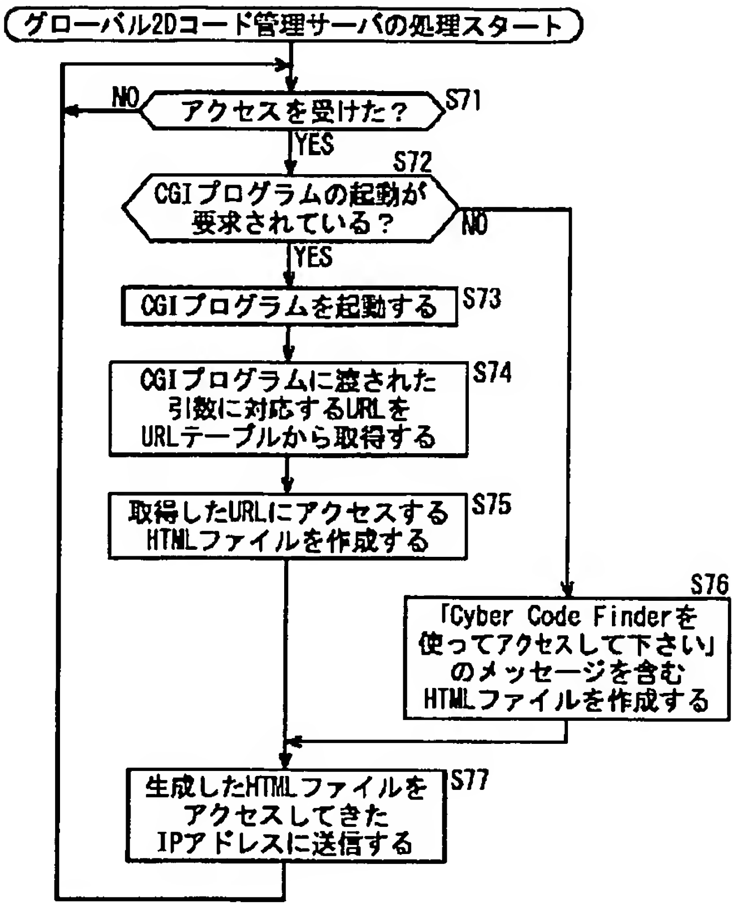
[Drawing 23]


ファイル(F) 編集(E) 表示(V) 移動(
H)
アドレス
Global Cyber Code Server
VAIO
Global Cyber Code Server
スタート

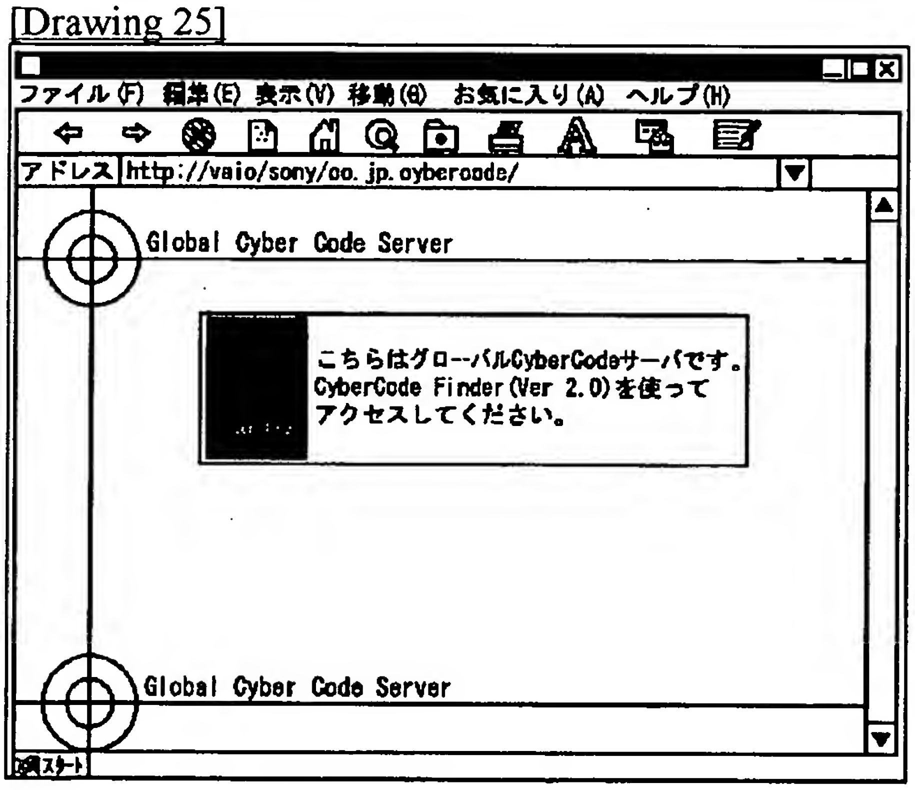
http://vaio/sonn/co. jp. cybercode/

登録されたURLに接続中です。
しばらくお待ち下さい･･･。

[Drawing 24]


グローバル2Dコード管理サーバの処理スタート
アクセスを受けた？
S71
NO
YES
CGIプログラムの起動が要求されている？
S72
NO
YES
CGIプログラムを起動する
S73
CGIプログラムに渡された引数に対応するURLをURLテーブルから取得する
S74
取得したURLにアクセスするHTMLファイルを作成する
S75
「Cyber Code Finderを使ってアクセスして下さい」のメッセージを含むHTMLファイルを作成する
S76
生成したHTMLファイルをアクセスしてきたIPアドレスに送信する
S77

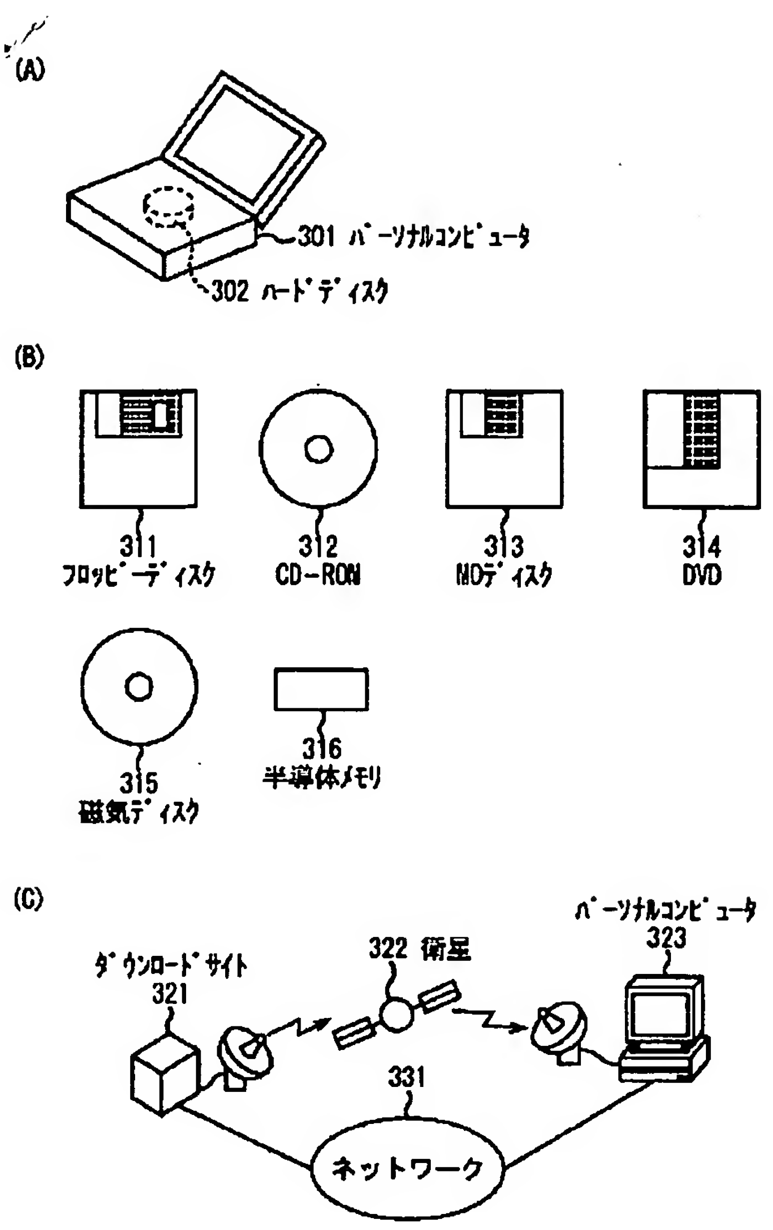
[Drawing 25]


ファイル(F) 編集(E) 表示(V) 移動(G) お気に入り(A) ヘルプ(H)
アドレス
Global Cyber Code Server
Global Cyber Code Server
スタート

http://vaio/sony/co.jp.cybercode/

こちらはグローバルCyberCodeサーバです。CyberCode Finder(Ver 2.0)を使ってアクセスしてください。

[Drawing 26]


(A)
301 ﾊﾟｰｿﾅﾙｺﾝﾋﾟｭｰﾀ
302 ﾊｰﾄﾞﾃﾞｨｽｸ
(B)
311 ﾌﾛｯﾋﾟｰﾃﾞｨｽｸ
312 CD-ROM
313 MOﾃﾞｨｽｸ
314 DVD
315 磁気ﾃﾞｨｽｸ
316 半導体ﾒﾓﾘ
(C)
ﾀﾞｳﾝﾛｰﾄﾞｻｲﾄ 321
322 衛星
ﾊﾟｰｿﾅﾙｺﾝﾋﾟｭｰﾀ 323
331
ネットワーク

[Translation done.]